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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/546,133	04/10/2000	Claude Basso	RAL9-00-0029	2809

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EXAMINER

CAO, DIEM K

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 08/28/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/546,133

Applicant(s)

BASSO ET AL.

Examiner

Diem K Cao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 April 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the Application filed on 4/10/2000.
2. Claims 1-20 are presented for examination.

Drawings

3. Figures 1A and 1B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Fig. 3, reference number 269. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
5. The drawings filed on 4/10/2000 are subject to correction of the informalities indicated on the attached "Notice of Draftperson's Patent Drawing Review," PTO-948. In order to avoid abandonment of this application, correction is required in reply to the Office Action. The correction will not be held in abeyance.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as

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the invention. Claim 1 recites the limitation "software component" in line 15. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (U.S. 6,604,136 B1) in view of Flory et al. (U.S. 6,009,476).

As to claim 1, Chang teaches in response to determining a desired controller functionality (the device driver incorporates ... particular controller; col. 4, lines 1-33 and the video controller ... independent sub-elements), loading a plurality of functional components that each provide a respective one of a plurality of network processor service (the shell module is loaded; col. 10, lines 20-30 and loads the requested board driver 74; col. 13, lines 54-60 and loading of the identified set of hardware interface modules; col. 15, lines 14-30), providing at least one utility interpose between the plurality of functional components and an operating system of the control system (establishment of the operating system interface objects ... are sequentially loaded into the memory; col. 19, lines 41-53 and Fig. 2), that provide an OS independent communication interface for the plurality of functional components (the OS object provides ... hide platform portability details; col. 12, line 58 – col. 13, line 3), the utility provides the format and return data to the OS layer in a manner appropriate for each call supported by the object (for each operating system interface objects ... by the object; col. 22, lines 47-61 and

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conversion of the operand data to the format that is unified ... to the device driver 50; col. 22, line 62 – col. 23, line 6).

However, Chang does not teach network processor, and in response to a receipt of a packet at the control system, handling the packet utilizing of the plurality of individual software components by first routing the packet through the utility, wherein the packet is decoded into a common code understandable by the OS and the one of the plurality of individual software components. Chang teaches a network processor (NP 10), loading device control module for controlling the functioning of NP 10 (device control module ... NP 10; col. 7, line 64 – col. 8, line 17), wherein the device control module and its provided API are operation system independent (DCM 74 ... host system 70; col. 8, lines 31-37), and the network processor processing the packets that it receives.

It would have been obvious to apply the teaching of Chang to the system of Flory because it provides the users with a system to controlling a network processor and operating system independent.

As to claim 2, Flory teaches the loading step includes the step of loading external application programming interfaces (shell module 72, O/S API; col. 7, line 45 – col. 8, line 65 and col. 10, lines 21-30), low level APIs (board driver 74; col. 13, line 54-60, hardware interface modules; col. 15, lines 14-30).

However, Flory does not teach loading physical transport interface of a device driver. Chang teaches loading physical transport interface of a device driver (function for manage physical layer; col. 8, lines 2-17). It would have been obvious to apply the teaching of Chang to

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the system of Flory because it provides the users with method to exercise fine-grained device level control of network processor.

As to claim 3, Flory teaches loading a customer definable service component within the external that includes a customer desired service, which is operable within the network processor services architecture (support for a new partial API ...operating system interface module; col. 22, lines 27-46).

As to claim 4, Flory as modified teaches the providing step includes the step of providing a bi-directional connection between the utility and the operating system, one or more network processors, and each of the functional components (the O/S object provides a call interface ...platform specific functions; col. 12, lines 58-61 and each of the operating system object ... by the object; col. 22, lines 47-61).

As to claim 5, Flory teaches the providing step further comprises the step of linking a system services utility to the operating system, wherein the system services utility operates to allow each of the individual software coded components to communicate with the OS (The operating system object provides the API ... platform specific functions; col. 11, line 65 – col. 13, line 3 and upper level initialization completion; col. 19, line 11 – col. 22, line 9).

As to claim 6, Flory teaches the O/S objects carry out the conversion task, which translates all messages between the host system of the controller (each of the operating system interface object ...conversion of the operand data to a format that is unified; col. 22, lines 47 – col. 23, line 6). However, Flory does not teach translate all incoming and outgoing service requests into a common network processor language to permit seamless connection and correspondence between the one or more network processors, the operating system, and each of

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the functional components to enable handling of network packets. Chang teaches the device control module of the network processor and the APIs provided by the control module are operation system independent. It would have been obvious to apply the teaching of Chang to the system of Flory because it provides a method for a device/network processor may be used for variety of applications (col. 7, lines 48-63)

As to claims 7 and 13, they correspond to the method claim of claim 1 except they are computer program product and control system claim, respectively.

As to claims 8-12, see rejections of claims 2-6 above.

As to claim 14, see rejection of claim 2 above.

As to claims 15-17, see rejections of claims 4-6 above.

As to claim 18, it is rejected under the same ground of claims 1 and 6.

As to claim 19, a switch fabric coupled to the one or more network processors.

As to claim 20, see rejections of claims 2, 4 and 5 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diem K Cao whose telephone number is (703) 305-5220. The examiner can normally be reached on Monday - Thursday, 9:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703) 305-8498. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-6296 for regular communications and (703) 305-9731 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner for Patents

PO Box 1450

Alexandria, VA 22313-1450

Or fax to:

- AFTER-FINAL faxes must be signed and sent to (703) 746-7238.
- OFFICIAL faxes must be signed and sent to (703) 746-7239.
- NON-OFFICIAL/DRAFT faxes should not be signed, please send to (703) 746-7140.

Diem Cao
August 22, 2003



JOHN FOLLANSBEE
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